

The Resurrection of a Medium for Electromagnetic Propagation

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In 1887, Michelson and Morley performed an experiment using an interferometer to detect an elastic medium that pervades all matter [1]. Surprisingly, the result was null and no such medium was detected. The dilemma can be resolved by the approach that the medium is not separate from matter, rather, it is comprised of a field of quantum particles coined as Q particles [2].

Maxwell was successful in the derivation of the speed of light as electric and magnetic strains in the medium [3]:

$$c_0 = \frac{1}{\sqrt{\mu_0 \epsilon_0}} = 2.99792458 \times 10^8 \text{ m/s}$$

Light is a hole in the medium that manifests as a quantum particle where the interaction of Q particles is the Q field. Thus electromagnetic emanation results due to back filling when a hole in the medium propagates outward. Matter can be thought of as condensed light; whereas, light can be viewed as evaporated matter.

In addition, the particle has wavelike characteristics. In the atom (composed of many Q particles), a photon results when an electron hops from a higher orbit to a lower orbit thus causing the hole to propagate outward.

Quantization of the medium offers a new way to characterize light and matter interactions. Matter is comprised of Q particles when the formation of vortices in the Q field occurs.

References:

[1] Michelson, Albert A.; Morley, Edward W. (1887). "On the Relative Motion of the Earth and the Luminiferous Ether." *American Journal of Science*. 34: 333–345.

[2] Bennett, C, "A Fundamental Particle of Relativistic Mass." April 2017, <http://www.chucksez.com/particlemass.pdf>

[3] Maxwell, James Clerk (1865). "A dynamical theory of the electromagnetic field," *Philosophical Transactions of the Royal Society of London*. 155: 459–512.

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